



Launch Mission Execution Forecast

Mission: Falcon 9 Starlink 4-19

Issued: 14 Jun 2022 / 0830L (1230Z)

Valid: 17 Jun 2022 / 1040 – 1220L (1440 – 1620Z)



Forecast Discussion: Lower than normal rain chances and near record heat will be the story this week as a strong mid to upper level ridge persists over the southeastern US. At the surface, a weak pressure gradient will bring light winds to start the day, allowing the east coast sea breeze to form and push inland by the afternoon. This will be the general pattern through the week. While a brief shower cannot be ruled out during the window as the east coast sea breeze initially forms and migrates westward, overall launch conditions generally look favorable on Friday. The main concern is the Cumulus Cloud Rule.

On Saturday, a weak surface boundary will push into the southeastern US. The boundary itself will not reach Central Florida, but it will shift winds southwesterly and increase moisture in the area. While shower and storm chances will likely be higher in the afternoon Saturday than the rest of the week, most of the activity is not expected to form until after the launch window, which is slightly earlier than Friday. The primary concern remains the Cumulus Cloud Rule.

Launch Day	Probability of Violating Weather Constraints ¹							
	20%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions					Additional Risk Criteria ²		
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	86°F / 69%	Cumulus	Scattered	3,000	7,000	Booster Recovery Weather:	Low
	Liftoff Winds (200'): 060° 5 - 10 mph					Solar Activity:	Low	
24-Hour Delay	Probability of Violating Weather Constraints							
	20%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions					Additional Risk Criteria		
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	86°F / 70%	Cumulus	Scattered	3,000	8,000	Booster Recovery Weather:	Moderate
	Liftoff Winds (200'): 230° 5 - 10 mph					Solar Activity:	Low	
Notes	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window.							
	2. Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor.							
See https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf for more information								
Next Forecast Will Be Issued			15 Jun 2022					